

From: [Young, Patrick](#)
To: [Webster, Susan](#); [Rauscher, Jon](#); [McQuiddy, David](#); [Pettigrew, George](#); [Lyke, Jennifer](#)
Cc: [Tina Forrester](#); [Richard \(Rick\) \(ATSDR/DCHI/CB\) Gillig](#); [Phillips, Pam](#); [Edlund, Carl](#); [Melody Gardner](#); [Delgado, Eric](#)
Subject: Fw: Info for West Fertilizer Company, West, Texas incident
Date: Thursday, April 18, 2013 10:41:29 AM

From: Wright, Scott V. (ATSDR/DTHHS/OD)
Sent: Thursday, April 18, 2013 10:26:18 AM
To: Young, Patrick
Cc: Holler, James S. (Jim) (ATSDR/DTHHS/OD); Murray, Ed (ATSDR/DTHHS/OD); Forrester, Tina (ATSDR/DCHI/OD); Lyke, Jennifer; Gillig, Richard (Rick) (ATSDR/DCHI/CB)
Subject: RE: Info for West Fertilizer Company, West, Texas incident

Patrick,

As we discussed on the phone per USEPA's request:

ATSDR would not expect any long term effects from the fire and subsequent explosion at the facility. In addition, if residents or responders avoided the plume from the fire and avoided skin contact from any run-off or residual product, it is not expected that they would have any adverse effects of an acute or chronic nature.

Ammonium nitrate is irritating to eyes, nose, and throat, and mucous membranes. A throbbing headache is common. Initial effects of ingestion are gastric irritation with nausea, vomiting and abdominal pain. Seizures have been reported following severe intoxication or ingestion of material. However, most all of the symptoms mentioned are transient and will disappear upon cessation of the exposure with no long term effects.

The minimal effect dose is extremely variable (studies range from 200ug/m³ - 10mg/m³ inhalation and 64-234 g oral) and the assessment of severity of toxicity should be based on clinical findings.

Ammonium nitrate by itself does not burn, but in contact with other combustible materials, it increases the fire hazard. It can support and intensify a fire even in the absence of air. Fires involving ammonium nitrate can release toxic nitrogen oxides and ammonia. A fire involving ammonium nitrate in an enclosed space could lead to an explosion. Closed containers may rupture violently when heated.

In a fire, all types of ammonium nitrate may melt and decompose with the release of toxic fumes (mainly oxides of nitrogen) which may be yellow or brown. Most types do not continue to decompose once the fire has been extinguished. However, when some types of ammonium nitrate fertilizers (cigar burners) are heated they undergo a smoldering (self-sustaining) decomposition that can spread throughout the mass to give substantial toxic fumes, even when the initial heat source is removed.

However, both of the primary combustion by-products, ammonia and oxides of nitrogen, would not be expected to still be in the ambient air or in the soil after the fire is extinguished.

Clean up of any residential or business area would be primarily of a general housekeeping

nature (i.e. wiping or washing down of hard surfaces, vacuuming, mopping, washing of exposed dishes/clothing and disposing of food stuffs which might have been exposed to the plume). Pets or animals left outside during the fire which might have come into contact with the plume should be washed or bathed. The same goes for any garden fruits or vegetables.

Thanks,

Scott

Scott V. Wright
Senior Health Scientist
CDC/ATSDR/DTEM/PRMSB/ERT
Room 08042
4770 Buford Hwy, NE MS F62
Atlanta, GA 30341-3717
770-488-3343 (office)
404-791-7421 (cell)
Wed & Fri (office hrs 0600-1630)
Tues & Thur (telework hrs 0600-1630)